

## PATENT COOPERATION TREATY

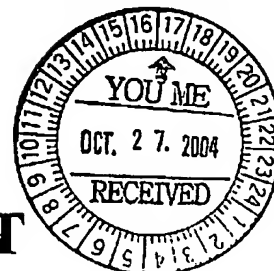
From the  
INTERNATIONAL SEARCHING AUTHORITY

To:

YOU ME PATENT AND LAW FIRM

Seolim Bldg., 649-10 Yoksam-dong, Kangnam-ku, Seoul 135-080, Republic of Korea

PCT



WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

Date of mailing  
(day/month/year) 20 OCTOBER 2004 (20.10.2004)

Applicant's or agent's file reference  
OPP041575KR

FOR FURTHER ACTION

See paragraph 2 below

International application No.

PCT/KR2004/001569

International filing date (day/month/year)

28 JUNE 2004 (28.06.2004)

Priority date(day/month/year)

27 JUNE 2003 (27.06.2003)

International Patent Classification (IPC) or both national classification and IPC

IPC7 H04L 9/14

Applicant

KT Corporation et al

## 1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

## 2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

## 3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/KR



Korean Intellectual Property Office  
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**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

PCT/KR2004/001569

**Box No. I Basis of this opinion**

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ This opinion has been established on the basis of a translation from the original language into the following language \_\_\_\_\_, which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).

2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:

a. type of material

- ☐ a sequence listing  
☐ table(s) related to the sequence listing

b. format of material

- ☐ in written format  
☐ in computer readable form

c. time of filing/furnishing

- ☐ contained in the international application as filed.  
☐ filed together with the international application in computer readable form.  
☐ furnished subsequently to this Authority for the purposes of search.

3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

4. Additional comments:

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

PCT/KR2004/001569

**Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

**1. Statement**

Novelty (N)	Claims		YES
	Claims	1 - 21	NO
Inventive step (IS)	Claims		YES
	Claims	1 - 21	NO
Industrial applicability (IA)	Claims	1 - 21	YES
	Claims		NO

**2. Citations and explanations :**

D : US 20030037241 (2003.2.20)

The claimed inventions relate to a two-factor authenticated key exchange method, in which a subscriber terminal sends an authentication message for a subscriber and an encryption word generated using a random number, a password and a symmetric key to an authentication server, and receives an authentication message for authentication server, and finally authenticates the received authentication message using the crypto-key and the password.

D discloses a method for authenticating a message recipient using a data encryption with a symmetric key algorithm and an authentication key generated by hashing algorithm.

Both of the cited document and the claimed invention describe the authentication method, in which a terminal send an authentication message to a server and receive an authentication message from the server, and the authentication is done using a password and a symmetric key. Even though the pre-computation process using a random number of the claimed invention is not shown in the citation and the extensible authentication protocol and the RADIUS protocol used in the claimed invention is not referred in the citation, these features of the claimed invention are obvious to a person skilled in the art or are suggested in the prior art. Therefore, the claims 1-21 are not considered to fulfil the requirement of novelty and inventive step under PCT Article 33(2)(3).